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1. *Observations of Le Verrier's Planet, In the Meridian.*

Altona. (Prof. Schumacher and Dr. Petersen.)

		Altona M.T. h m s	R.A. ° ′ ″	Dec. ° ′ ″
1846	Sept. 28	9 23 56·0	328 13 27·0	−13 26 16·2
	29	19 56·5	12 21·8	26 39·8
	Oct. 1	9 11 56·1	10 11·7	27 24·5
	4	8 59 56·2	7 9·3	28 26·9
	5	55 56·2	6 7·8	28 48·9
	6	51 56·5	5 11·0	29 6·9
	8	43 57·5	3 22·3	29 47·9
	11	8 31 59·7	328 0 50·6	30 37·4
	21	7 52 14·0	327 54 9·6	32 52·2
	27	28 28·3	51 35·8	33 45·7
	Nov. 2	4 47·2	50 10·7	34 12·1
	3	7 0 50·7	327 50 1·5	−13 34 13·2

The observation of October 21 is not so good as the rest: the planet disappeared from time to time during its passage through the field.

Göttingen. (Prof. Gauss.)

		Göttingen M.T. h m s	R.A. ° ′ ″	Dec. ° ′ ″
1846	Sept. 27	9 27 57·1	328 14 35·8	−13 25 54·0
	Oct. 6	8 51 56·5	5 12·6	29 6·0
	10	8 35 58·8	328 1 40·7	30 17·8
	21	7 52 13·7	327 54 7·8	32 50·1
	Nov. 3	7 0 50·7	327 50 3·5	−13 34 13·1

Hamburg. (M. Rümker.)

		Hamburg M.T. h m s	R.A. ° ′ ″	Dec. ° ′ ″
	Sept. 28	9 23 56·5	328 13 28·2	−13 26 15·0
	29	19 56·2	12 18·5	26 37·4
	Oct. 1	9 11 56·4	10 7·8	27 28·2
	4	8 59 55·9	7 5·3	28 30·0
	6	51 56·4	5 10·5	29 9·6
	8	43 57·5	3 22·8	29 45·8
	11	31 59·4	328 0 47·3	30 41·6
	17	8 8 6·7	327 56 27·6	32 9·5
	21	7 52 13·5	54 6·7	32 55·9
	27	28 28·1	51 35·3	33 48·0
	Nov. 2	4 46·8	50 5·8	34 13·8
	3	7 0 50·5	50 1·0	34 15·1
	10	6 33 19·2	327 50 1·5	−13 34 11·5

Turin. (Baron Plana.)

		R.A. h m s	Dec. ° ′ ″
1846	Oct. 8	21 52 13·52	−13 29 40·4

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GENEVA. (Prof. Plantamour.)

			Geneva M.T. h m s	R.A. h m s	Dec. ° ′ ″
1846	Oct.	6	8 51 53·9	21 52 20·62	−13 29 12·6
		9	39 55·3	52 9·79	30 7·9
		10	8 35 56·2	21 52 6·58	−13 30 21·4

WROTTESLEY. 5-foot Transit. (Lord Wrottesley.)

			Greenwich M.T. h m s	R.A. h m s
1846	Oct.	6	9 0 42·04	21 52 20·62
		8	8 52 42·79	52 13·16
		10	8 44 44·09	52 6·25
		15	8 24 49·38	21 51 51·04

LIVERPOOL. 5-foot Transit. (Mr. Hartnup.)

			R.A. h m s
1846	Oct.	3	21 52 31·90
		10	52 6·17
		26	51 27·77
	Nov.	10	21 51 20·27

Longitude of Liverpool Observatory ..... $12^m\ 0^s$ West.

With Equatorial and Micrometer.

BERLIN. (Prof. Encke and Dr. Galle.)

			Berlin M.T. h m s	R.A. ° ′ ″	Dec. ° ′ ″
1846	Sept.	23	12 0 14·6	328 19 16·0	−13 24 8·2
		24	8 54 40·9	18 14·3	24 29·7
		25	9 41 45·0	16 59·8	24 55·4
		26	10 11 54·3	15 48·3	25 22·2
		27	8 29 48·9	14 42·8	25 44·6
		28	11 31 28·8	13 25·5	26 11·5
		29	9 14 3·7	12 23·4	26 32·6
	Oct.	2	11 5 35·2	9 7·0	27 41·4
		6	8 0 54·2	5 16·2	29 1·3
		10	8 52 56·3	328 1 42·2	−13 30 14·7

On Sept. 29, the diameter of the planet was found to be 2″·79.

The planet is always compared with the same star of the 9th magnitude, the mean position of which is *assumed to be*,

		R.A. ° ′ ″	Dec. ° ′ ″
1846	Jan. 1	327 56 56·4	−13 26 9·6

WROTTESLEY. (Lord Wrottesley and Mr. Philpott.)

			Greenwich M.T. h m s	R.A. h m s	N.P.D. ° ′ ″	No. of Obs.
1846	Oct.	3	9 33 19	21 52 31·94	103 28 13·2	8
		13	7 23 39	51 55·85	31 23·1	1
		17	9 34 42	51 45·52	32 6·5	3
		28	7 28 34	21 51 25·73	103 33 44·1	11

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The stars of comparison are 7648 and 7691 of the British Association Catalogue, the right ascension of the first star has been diminished by $0^s.27$, and of the latter by $0^s.18$, as shewn by transit observations at Wrottesley. Two of the observations on October 3 have been rejected. The observations are corrected for refraction.

MAKERSTOUN. (Sir T. M. Brisbane and Mr. Brown.)

		Makerstoun M.T.	R.A.	No. of Obs.	N.P.D.	No. of Obs.
		h m	h m s		° ′ ″	
1846	Oct. 8	8 52	21 52 13·30	3	103 29 37·0	3
	9	7 38	52 10·12	3	29 59·5	3
	2[illegible]	6 56	51 27·96	13		
		7 31			33 36·9	10
	29	6 32	51 24·05	10	33 53·5	10
	30	6 50	51 23·02	13	33 58·7	10
	Nov. 3	8 3	51 20·27	11	34 10·7	6
	9	7 40	51 20·09	10		
		8 1			34 11·5	2
	10	7 24			103 34 8·4	10
		7 32	21 51 20·37	17		

The planet was compared with 7648 British Association Catalogue, and the observations, which are corrected for refraction, assume the tabular place of the star, given in the catalogue, to be correct.

HARTWELL. (Dr. Lee and Mr. Dell.)

		Hartwell M. T.	R.A.	Dec.	N. of Obs.
		h m	h m s	° ′ ″	
1846	Oct. 13	9 20	21 51 57·26	−13 31 23·4	3
	15	9 30	51 51·46	31 55·5	3
	16	7 31	51 48·44	32 10·7	3
	17	7 55	51 46·13	32 27·1	3
	18	7 43	51 43·72	32 37·9	3
	19	6 46	51 41·40	32 48·2	4
	20	9 0	51 39·51	33 1·8	4
	23	7 38	51 33·31	33 31·4	5
	25	7 13	51 29·59	33 47·6	3
	Nov. 11	7 0	21 51 21·55	−13 34 22·2	5

These observations are made with a power of 150. The places depend upon 7648 British Association Catalogue, reduced by the constants of that work. The observations are by Mr. T. Dell.

SOUTH VILLA. (Mr. Bishop and Mr. Hind.)

		Greenwich M.T.	R.A.	Dec.
		h m s	m s	′ ″
1846	Oct. 3	8 7 48	a + 2 22·84	a − 4 30·8
	5	7 32 45		a − 5 11·7
	8	9 43 24	b + 0 21·87	b − 3 52·6
	18	9 25 58	b − 0 7·98	b − 6 27·8
	20	9 54 10	b − 0 12·30	b − 6 51·5
	30	8 1 37	b − 0 28·40	b − 8 8·3

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a is 7648 British Association Catalogue.

b is the star observed at Berlin on the discovery of the planet, the approximate mean place of which for 1846 is

R.A. $327^{\circ}\ 56'\ 56''.4$ Dec. $-13^{\circ}\ 26'\ 9''.6$

The place given in Bessel's zones is not to be depended on.

Some careful measures with a doubly-refracting crystal micrometer, by Dollond, make the diameter = $2''.53$ on October 8.

CAMBRIDGE, U.S. (Professor W. C. Bond.)

		Cambridge M.T. h m	R.A. h m s	Dec. ° ′ ″
1846	Oct. 21	8 0	21 51 32·67	... ...
	24	8 0	51 27·04	−13 33 47·3
	29	8 0	21 51 20·47	−13 34 22·2

The star of comparison is 7648 of the British Association Catalogue, referred to the mean equinox of Jan. 1, 1846. The assumed mean place of the star is

R.A. $21^{h}\ 50^{m}\ 6^{s}.01$ Dec. $-13^{\circ}\ 23'\ 54''$

The position of Cambridge Observatory, U.S. is stated by Professor Bond to be

Latitude $42^{\circ}\ 22'\ 49''$ North. Longitude $4^{h}\ 44^{m}\ 32^{s}$ W. of Greenwich.

Mr. Hartnup has furnished the following mean right ascension of stars near the planet for January 0, 1846.

	Mag.	R.A. h m s	N.P.D. ° ′
B. A. C. 7648	(7·8)	21 50 5·82	103 24
	(7·8)	21 52 46·95	103 45

which are well suited for observing the planet with Boguslawsky's single-wire micrometer, and a low power.

Mr. Lassell has viewed the planet with his Newtonian reflector (2-feet diameter, equatorially mounted), and sees something like a ring crossing its disc. The atmospheric conditions have not been favourable, but the streak is seen in the same direction, using two different mirrors, and by several observers, so that its existence seems very probable. The appearance may possibly be caused by some distortion or flexure in the mirror, but can scarcely be the effect of imagination. One, or perhaps two, luminous points have been seen, which *may be* satellites; but this will require further scrutiny.

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